Informative WebCast Event
12 April 2022

A presentation on KAVA Call 10

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Funded by the European Union

EIT Innovation Communities

Leading European initiatives that empower innovators and entrepreneurs to develop world class solutions to societal challenges and creates growth and scaled jobs.

EIT RawMaterials vision is to develop raw materials into a major strength for Europe.

Its mission is to enable sustainable competitiveness of the European minerals, metals and materials sector along the value chain by driving innovation, education, and entrepreneurship.

EIT Innovation Communities

- **World's largest community in the raw materials sector**
- **Coverage of the entire raw materials value chain**
- **Over 300 renowned partners**
- **22+ countries**
- **16 locations across Europe**
- **Headquarter in Berlin, Germany**

Innovation Hub
RC (Regional Center)
RIS HUB (Regional Innovation Scheme)

Countries covered by EIT RawMaterials
Countries covered by EIT RawMaterials and RIS

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Regional Center Greece

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Regional Center Greece *The Role*

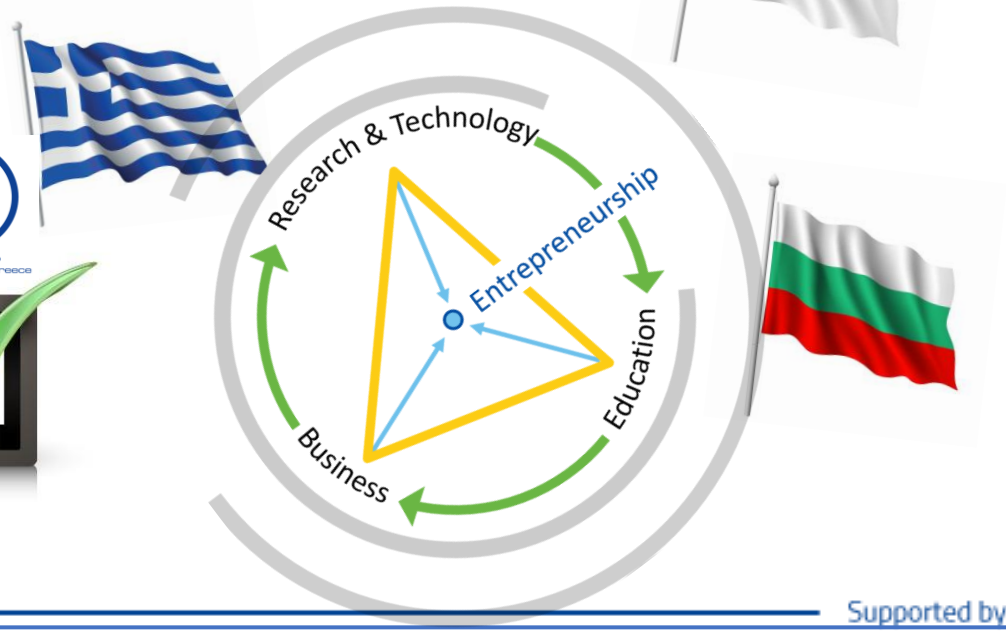
RawMaterials Hub
Regional Center Greece

- ❑ Operated by NTUA, School of Mining and Metallurgical Engineering
- ❑ Institutional interactions between Knowledge Triangle actors
- ❑ Development and implementation of joint educational and innovation initiatives
- ❑ Supporting existing and new members of the Regional EIT RawMaterials Community
- ❑ Bridging activities to facilitate innovation

Networking
Acceleration
RM Academy

Identification of common challenges

Synergies, Innovation,
A step further



EIT RawMaterials: The Innovation Themes

EXPLORATION
AND RAW MATERIALS RESOURCE ASSESSMENT

MINING
IN CHALLENGING ENVIRONMENTS

PROCESSING
INCREASED RESOURCE EFFICIENCY IN MINERAL AND METALLURGICAL PROCESSES

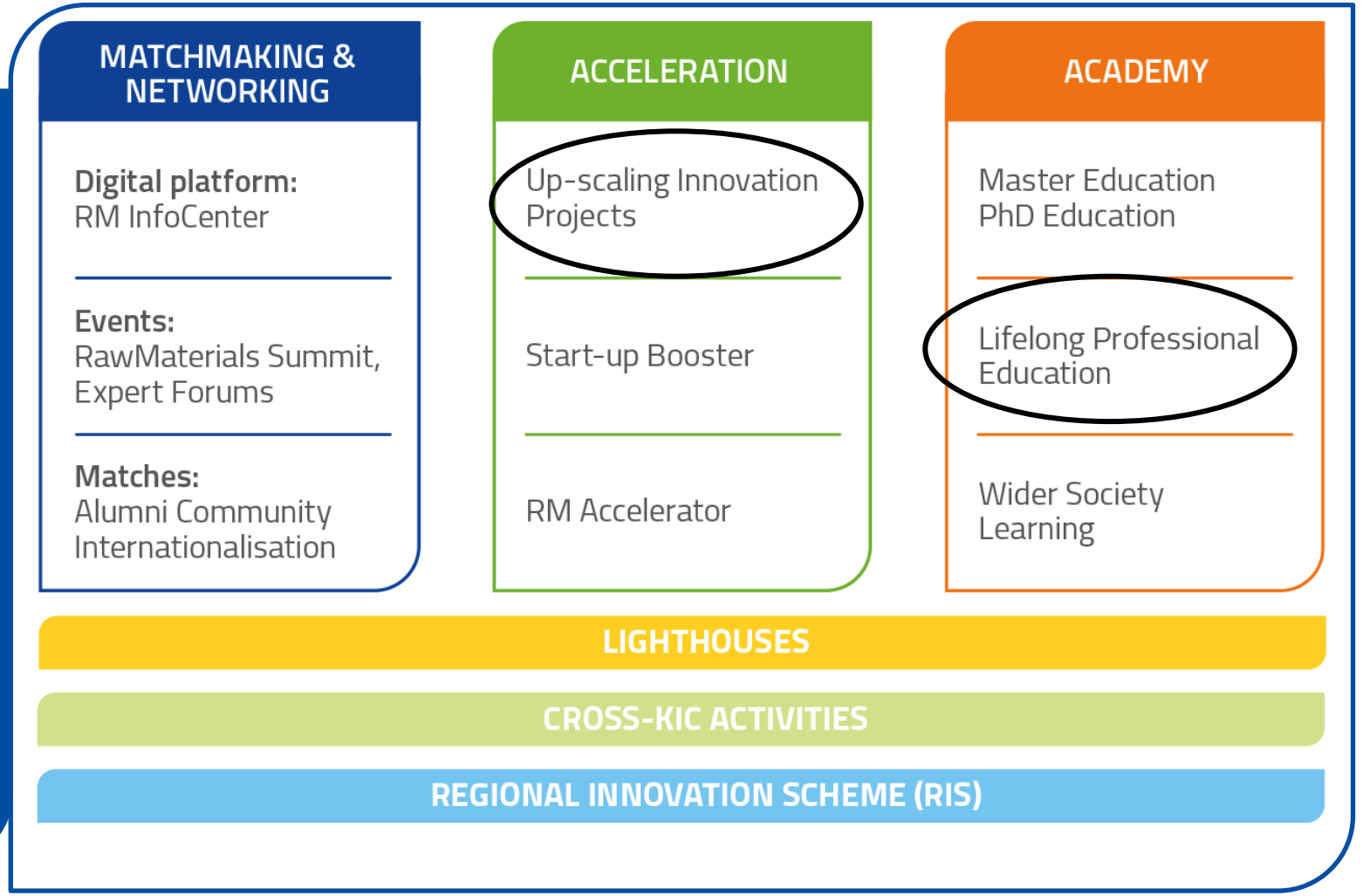
RECYCLING
AND MATERIAL CHAIN OPTIMISATION OF END-OF-LIFE PRODUCTS

SUBSTITUTION
OF CRITICAL AND TOXIC MATERIALS IN PRODUCTS FOR OPTIMISED PERFORMANCE

CIRCULAR ECONOMY
DESIGN OF PRODUCTS AND SERVICES FOR THE CIRCULAR ECONOMY

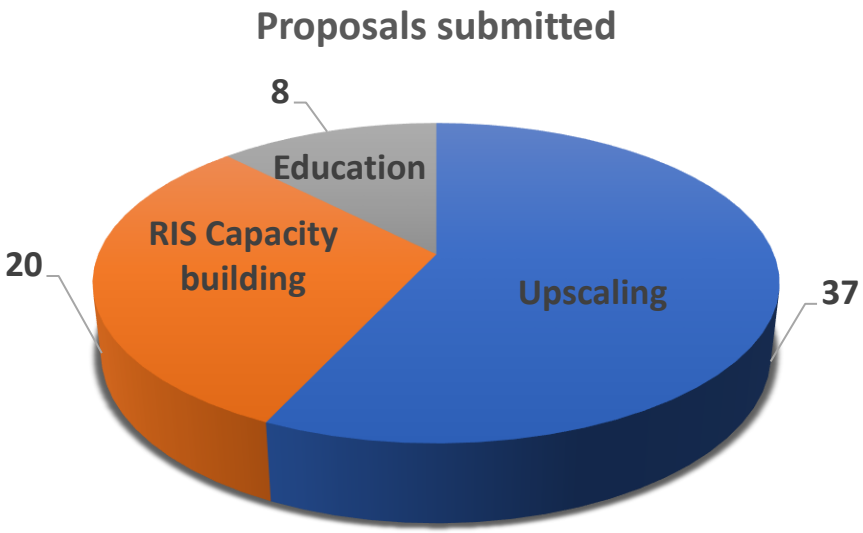
EIT RawMaterials *Overview of Activities*

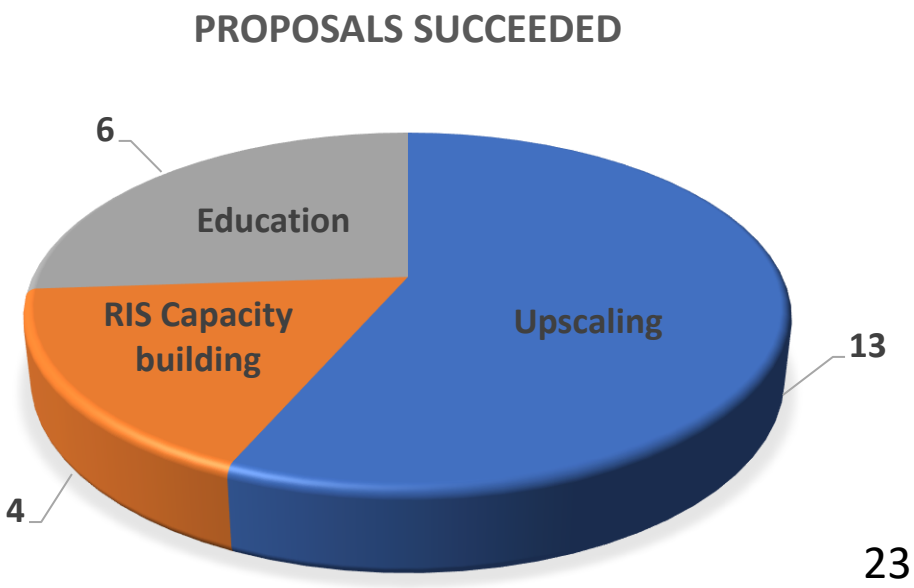
Innovation, Education & Entrepreneurship Activities



Call for projects 2021 (KAVA8) Results

Stage 2:
65 proposals submitted





Final results:
23 proposals selected

Success rate:
35% for Upscaling
20% for RIS Capacity Building
75% for Education

EIT RawMaterials *partners and membership*

More than 120 core and associate partners and over 180 project partners

Benefits

support of innovation and education projects

access to the digital collaboration and networking platform

access to networking and matchmaking events to meet experts

benefit from preferred access to the network and servicing components

Partner levels

- Core Partner
- Associate Partner
- Project Partner

https://eitrawmaterials.eu/wp-content/uploads/2021/11/2021-11-08_How-to-become-EIT-RawMaterials-partner-2021.pdf

World’s largest Innovation Community in the Raw Materials Sector

Industry

World's largest Innovation Community in the Raw Materials Sector

Research & Technology

World's largest Innovation Community in the Raw Materials Sector

Universities

RawMaterials
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Co-funded by the European Union

Call for Projects 2023
is officially open

KAVA10: KIC Added Value Activity

13:00 CET: Proposal registration- 1st stage

Draft proposal submission deadline

31 May 2022

22 June 2022

Outcomes of Evaluation of draft proposals

13:00 CET: Final proposal submission deadline

14 Sep2022

19 Oct. 2022

Final proposal outcomes

https://seedbook.eitrawmaterials.eu

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EIT RawMaterials *Lighthouses*

- Lighthouses are high-impact, long-term innovation activities that address the **economic, societal and environmental challenges** in Europe.
- Lighthouses are implemented through actions such as:
  - Innovation and Education Projects,
  - Matchmaking events and
  - Business creation activities

1. Responsible sourcing
2. Sustainable materials
3. Circular societies

Topics to follow under KAVA10

- Exploration: data-driven decision making in the extractive sector
- Mining and processing: responsible sourcing of materials
- Future exploration, mining, and processing technologies:
  - Advanced and fully integrated exploration – smart targeting of ore deposits
  - Future mining – Increase safety and reduce the environmental footprint of mining operations (whole cycle)
  - Mineral processing – improve efficiency and reduce emissions and CO2-footprint

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Topics to follow under KAVA10

- Innovation in the substitution of critical, toxic, and low-performance materials
- Additive manufacturing of materials, including powder development and microstructure engineering
- Resource efficient design of materials

Topics to follow under KAVA10

- Industrial symbiosis: turning waste resources into valuable industrial input materials
- Design for recycling and life-time extension: optimise the design of materials and products to create a business case
- End-of-life product recycling
- Chain of custody: improving the traceability, sustainability, and transparency of supply chains, including Life Cycle Assessment.

EIT RawMaterials *Regional Innovation Scheme*

The **EIT Regional Innovation Scheme (EIT RIS)** is designed for modest and moderate innovator countries, and where EIT Knowledge and Innovation Communities have few or no partners.

Objectives:

- Widen participation in EIT Community from countries with lower participation.
- **Share good practice, experience and know-how** emerging from EIT Community activities
- **Offer tailor-made services** to address identified innovation gaps

Boost innovation in EIT RIS countries

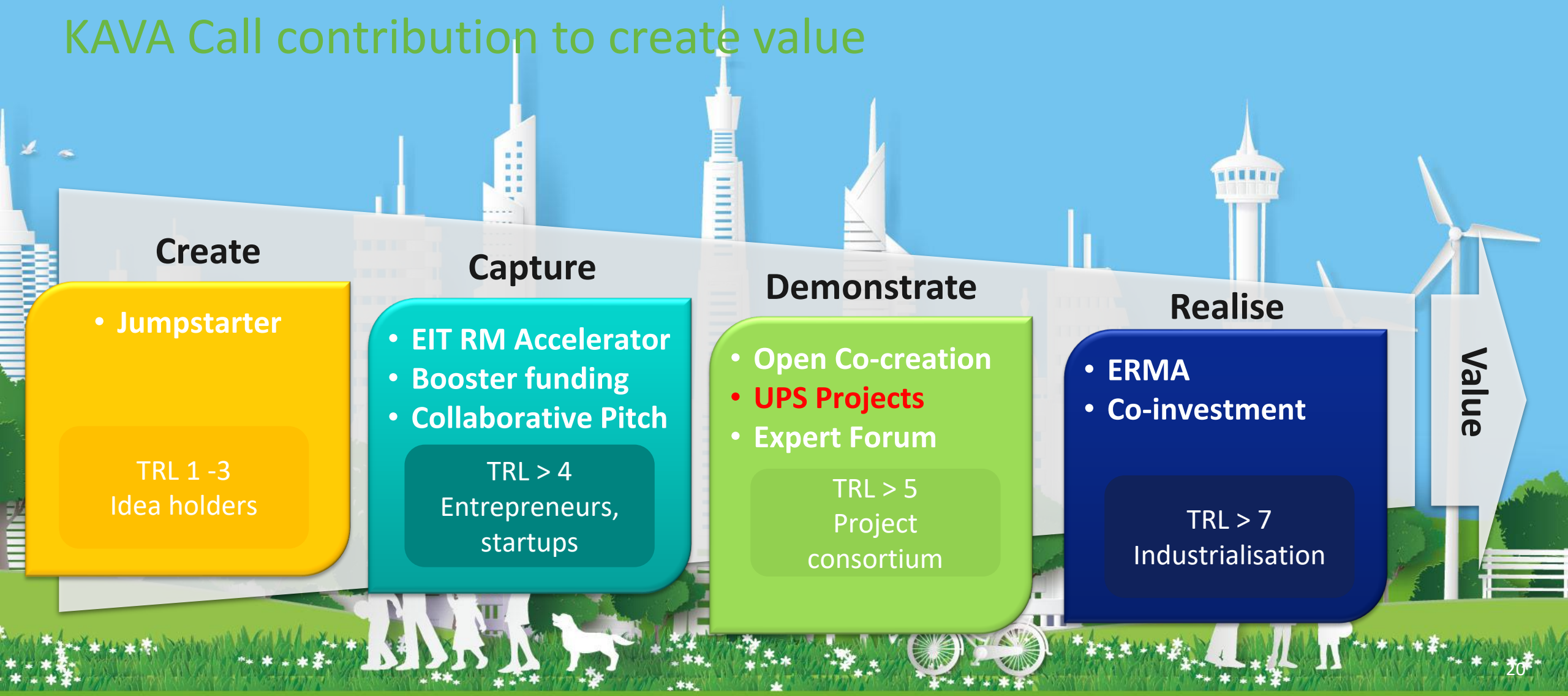
Extra funding opportunities through calls. At least 10% of the overall yearly budget will be used to support RIS projects

Upscaling (+RIS Upscaling)

RIS Capacity Building Call

Education (+ RIS Education)

KAVA Call contribution to create value



EIT RawMaterials KAVA10 *Upscaling Projects*

Upscaling Projects are innovation projects based on validated technologies that need additional step(s) for

- up-scaling,
- demonstration or
- Implementation

Objective: Bring the technology to market, as a product, service or process.

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EIT RawMaterials KAVA10 *Upscaling Projects*

Specifications

- Proposed technology must be of at **least TRL 5** and reach at the end of the project **TRL 7**
- Emphasis to **market analysis/commercialisation** and **business plan.**
- All projects must contribute to the long-term financial sustainability targets of the KIC by aiming at generating backflow in the event of success.
- Project consortium must consist of a minimum of **2 organizations**, coming from a minimum of **2 countries**

EIT RawMaterials KAVA10 *Upscaling Projects*

Specifications

- Co-funding contributed by the project consortium should be minimum 30% of the total funding
- The budget for each project will be **no less than € 500,000 per year** (including EIT funding and consortium co-funding).
- Projects with **potential to become investment cases for the European Raw Materials Alliance (ERMA)** will be evaluated positively and will be given a priority

Upscaling (+RIS Upscaling)

RIS Capacity Building Call

Education (+ RIS Education)

EIT RawMaterials KAVA10 *RIS Capacity Building*

The aim of **EIT RM RIS Thematic** is to increase innovation capacity in RIS countries by impact-driven activities

- ✓ Engage players from RIS countries and build networks
- ✓ Transfer knowledge from countries with high innovation level to RIS countries
- ✓ Engage entities from RIS-countries into the EIT RM Community – new Partners

The **East & South-East Europe (ESEE) region** is of particular interest due to its unique raw materials potential

EIT RawMaterials KAVA10 *RIS Capacity Building*

Topics Examples

- ❑ Testing of new / innovative products or technologies in RIS regions
- ❑ Train-the-trainer targeting entrepreneurship and innovation
- ❑ University-Business Cooperation activities, e.g. internships, bonuses for graduates returning to their native country
- ❑ Preparation of RIS Upscaling proposal or RIS ERMA investment cases
- ❑ Market analysis / go-to-market strategies for future RIS Upscaling Projects
- ❑ Activities contributing a significant amount of EIT Core RIS KPIs presented in Strategic Agenda 2021-27

*The list above is not exclusive

EIT RawMaterials KAVA10 *RIS Capacity Building*

Specifications

- ❑ Lead organization must be from a **RIS country**
- ❑ Project implementation in RIS countries leading to increased innovation level
- ❑ Must include organizations from **at least 2 sides of the knowledge triangle** (education, research, industry)
- ❑ Request of up to **100% EIT funding**
- ❑ min. 3 KIC Partners coming from a min. of 2 countries
- ❑ A **clear plan** must be provided on **continuation** of activities after the project duration
- ❑ The project duration can be from 1 to 2 years

Upscaling (+RIS Upscaling)

RIS Capacity Building Call

Education (+ RIS Education)

KAVA Call contribution in developing talents

School

- **RM University Days**
- **X-KIC Edu- EIT Youth**
- *X-KIC Edu - Human Capital &* Entrepreneurial skills

To bring talents to the RM sector

Higher Education

- **EIT labeled Master programmes**
- **Summer schools**

- **HEI Capacity Building**

To develop transversal Entrepreneurial & Innovation skills at institutional level

Company

- **Lifelong learning**
- ***X-KIC Edu – Alumni & virtual camps***

For upskilling and re-skilling

Talents

ENTREPRENEURSHIP

EIT RawMaterials KAVA10 *Education, LLL*

LLL Education courses offer innovative professional training for individuals **already working in the RM sector.**

Training draws on expertise from all three sides of the knowledge triangle to **respond to the industry's changing needs and remains at the forefront of innovation.**

Courses are designed not only with the acquisition of skills and transfer of knowledge in mind, but also focus on **tackling innovation challenges** and the **competitive pressures of new trends and technologies in the RM sector**

EIT RawMaterials KAVA10 *Education – Lifelong Learning, LLL: pilar 1*

KAVA 10 will call **for a limited number of LLL** projects within **4 thematic areas** and **objective to secure sustainable access to critical and strategic raw materials, advanced materials, and processing know-how for the EU industrial ecosystems**

Proposals must be **demand driven and demonstrate an industry need** for the course. **Training needs analysis, course design, Business Model, Evaluation**

EIT RawMaterials KAVA10 *Education – Lifelong Learning: pilar 2- Thematic orientation*

EIT RawMaterials Academy carried out a systematic analysis of KIC's portfolio of projects and identified gaps that need addressing. **These have been matched with with current and future skill gaps in the European workforce**. Henceforth, EIT RM seeks LLL proposals which address four topics:

- **Design for circularity**
- **Earth observation for the raw materials sector**
- **Environmental, social and governance**
- **Chain of custody – Traceability methodologies**

EIT RawMaterials KAVA10 *Education – PhDsummer/winter schools: pilar 1- Pedagogical Approach*

The **pedagogical approach and didactic design of the PhD summer/winter schools must be challenge-based**, with PhD students developing solutions to challenges sourced from industry and/or start-ups/SMEs.

The PhD summer/winter school proposals must fulfil all of the following criteria:

- **Include at least one of the Lighthouse learning objectives**
- **Meaningfully involve industry and start-ups in the PhD summer/winter school program and implementation**
- **Include key EIT education elements (e.g. entrepreneurial education, provide the industrial perspective)**
- **Adopt an interdisciplinary approach**

EIT RawMaterials KAVA10 *Education – PhDsummer/winter schools: pilar 2*

Thematic orientation

The knowledge, skills and attitudes that PhD students should have acquired after participating in a PhD summer/winter school must include one or more of the corresponding Lighthouse learning objectives:

- **LH Responsible sourcing**
- **LH Sustainable Materials**
- **LH Circular Societies**

Topics addressed on Doctoral schools

• Responsible sourcing

1. Utilise earth observation data and services for mineral exploration and mining
2. Understand the value of smart digital solutions and machine learning solutions
3. Integrate multiple approaches and techniques in mineral exploration
4. Elaborate the concept of Environmental, Social and Governance (ESG) for exploration, mining, and processing activities

• Sustainable materials

1. Advanced materials to realise a carbon-neutral Europe and implement the European Green Deal,
2. Materials choices for substituting critical, toxic, and low-performance materials
3. Additive Manufacturing for the production of metallic materials and parts

• Circular societies

1. Apply circular approaches when developing new business ideas, designing of new product and securing the supply of CRM
2. Adopt the industrial symbiosis approach
3. Develop an understanding of cross value chain efficiency
4. Understand the chain of custody concept

EIT RawMaterials KAVA10 *Education – PhDsummer/winter schools: pilar 3*

Management and Implementation

The project duration should be maximum three years, with the first year for program development and (up to) two years for implementation of one summer/winter school edition per annum.

EIT RawMaterials KAVA10 *Education*

Specifications

- **Proposals must show that they can support the sustainability of the organization.** Business model and negotiation of a backflow model
- **The program must record achievements, and improve continuously.** Course evaluation after each training session
- Partners may request up to 100% funding for eligible KAVA costs. Project duration from a min. of 1 year to a max. of 3 years

EIT RawMaterials KAVA10 *Education - Lifelong Learning proposals*

Specifications

- **Alignment with the thematic orientation:** the DRAFT proposal should clearly demonstrate how the learning objectives are aligned to the thematic orientation described. **Design for circularity. Earth observation for the raw materials sector, ESG, Chain of custody – Traceability methodologies**
- **Inclusion of a revenue sharing model:** the DRAFT proposal must outline the business model through which a financial backflow to the KIC is to be initially proposed by the commercialising party. Relevant feasibility and market aspects must be considered in a dedicated **'go-to-market' Work Package,**
- **EIT CORE KPI HE 8.1 No of participants in non degree education and training**

EIT RawMaterials KAVA10 *Education - PhD Summer/winter schools*

Specifications

- **Alignment to EIT RawMaterials Lighthouses:** aligned to at least one EIT RawMaterials Lighthouse by incorporating at least one of the learning objectives of the corresponding Lighthouse described in **Pillar 2** into the learning objectives of the PhD summer/winter school.

Circular Societies, Responsible Sourcing, Sustainable Materials

EIT RawMaterials KAVA10 *Education - PhD Summer/winter schools*

Specifications

- **Inclusion of a self-sustainable model after the end of the project :** as participation fees must be applied and must strive toward becoming **a self-sustained model**, the DRAFT proposal must include preliminary estimate of students' participation fees and a summary, well-planned strategy to ensure **the school be run after the end of EIT funding.**
- **EIT CORE KPI HE 8.1, No of participants in non degree education and training**
- **In English**

NTUA-SMME EIT Raw Materials Education Projects, 2017-to the present

Project type		
RM Academy	LLL	HydroMetEC
	Wider Society Learning (WSL)	CEMOOC VIRTUAL MINE RM@Schools-ESEE SISTEM
	Master's	SETI VR Lab EIT RM Master School (RMUD)
	PhD	TOPSTARS
	RIS	RIS Education & Entrepreneurship RIS Internship DIM ESEE-2 RMsManager TrainESEEv.2
RIS		EnAct-SDGs

- 16 Projects:

9 finished, 7 running

- 52 Partners
- 21 European Countries (EU & non-EU)

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NTUA-SMME EIT Raw Materials
Education Projects, 2017-to the present

Project	Students/ NTUA	Trained Trainers
TOP STARS 3 Summer Schools for Ph.D students and young researchers	161/26	
EnAct-SDGs, 3 Pilot Schools for RM students, RIS countries	73/31	
RMs Manager Master Course, RIS Countries	140/57	
Train ESEEv2 4 Workshops		80/9

1st stage proposal submission

EIT RawMaterials KAVA10 *General Information*

- *The proposal submission will take place in 2 stages, with a DRAFT proposal- 5 pages* ***(May 31st, 2022)*** *and a FINAL proposal- full* ***(Sep 14th, 2022)***

- ***Two calls/year****, a fixed 2 stage-process submission and selection process, and a stable timeline*

- ***Non-members are eligible to apply*** *(non-members as coordinators)* NEW

- *The possibility for partners to* ***resubmit a proposal****, with topics re-addressed once, and enough time to resubmit at Stage 1 of next KAVA Call*

EIT RawMaterials KAVA10 *General Information*

- *No special reference to technical part (**emphasis on impact**)*
- *Indication of budget, not exact*
- *May specify the expertise needed and not have the actual partner for the 1st stage*
- *Define aims and objectives and lead to specific deliverables, outputs and final results over a defined time schedule*

EIT RawMaterials KAVA10 *1st stage proposal outline*

Not exceed 5 pages

1. executive summary, with objectives, outcomes and final results expected (1/2 page),
2. short description of the consortium with role of each partner (1/2 page)
3. detailed information addressing the selected criteria that have been updated (differentiate depending on category) (4 pages)

➔ *proposals receiving "yes" to all of the selected criteria will be invited to submit in Stage 2.*

EIT RawMaterials KAVA10 *1st stage differentiation depending on categories*

Upscaling	RIS capacity building	Education
Alignment with the LH topics	Strategic alignment	Strategic Agenda and LH selection
Impact (select KPIs) and Innovativeness (describe difference from state-of-the-art)	Impact in RIS KPIs	Achievement of EIT Core KPIs
Commercial attractiveness: market analysis, forecast and go-to-market	Relevance and potential : demonstrate challenge and solution	Composition of the consortium-roles and responsibilities
Commercialization capacity : who will produce/commercialise, IP provisions	Project implementation capacity: solid past track record, clear roles	Alignment with at least one Lighthouse Program
Estimated Backflow revenues to the organization	Potential for project continuation (clear plan after funding)	Inclusion of a self-sustainable model after the end of the project

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Co-funded by the European Union

EIT RawMaterials
EXPERT FORUM

Driving sustainability through innovation and education

27-29 June 2022, Berlin

Expert Forums –
to engage with Partners, to talk raw materials

Specific Objectives:

i. to identify clusters of partner interests and projects

ii. to align on innovation targets, i.e., in terms of technology development, education, and business creation

iii. to identify pressing industry needs as well as innovative approaches to raw materials challenges for the Innovation Community's calls for proposals using EIT funding

https://eitrawmaterials.eu/expert-forum/

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Q & A Session

further information and call documents

https://eitrawmaterials.eu/call-for-projects/

Regional Center Greece *Connect with us!*

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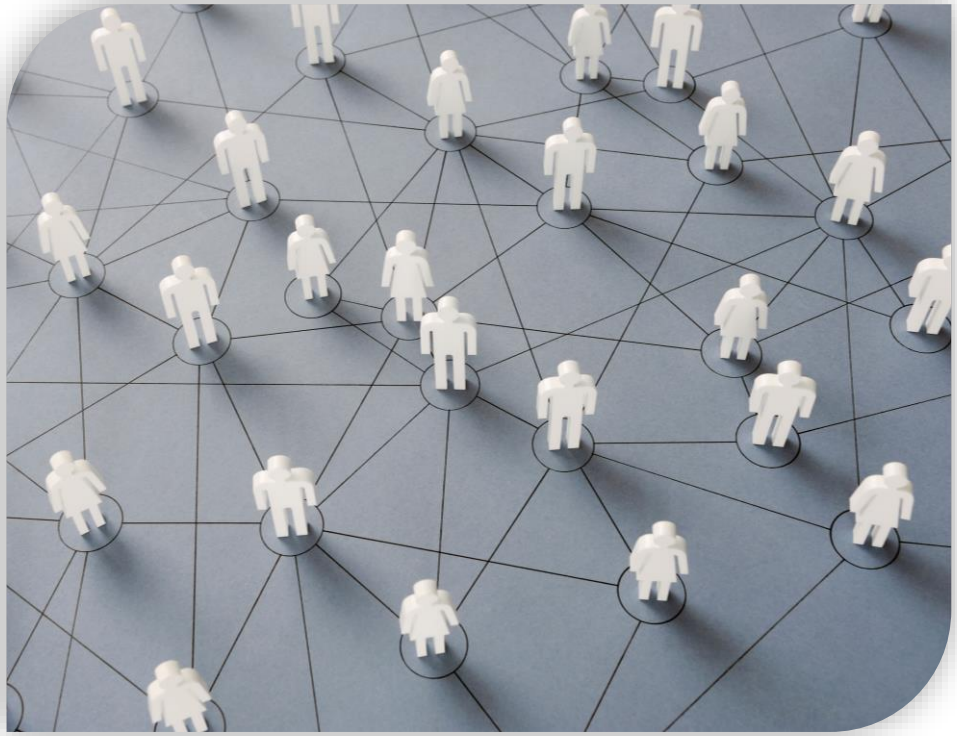

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